Santamauro, Jon

From: flynnj@us.ibm.com
Sent: Monday, April 30, 2001 6:00 PM
To: scpcomments@uspto.gov
Subject: IBM Comments to USPTO 3/19/01 RFC

IBM-Response-USPTO-RFC.doc

Mr. Santamauro -- In response to the March 19, 2001 USPTO Request for Comments on the International Effort to Harmonize the Substantive Requirements of Patent Laws, IBM is pleased to submit the attached response.

(See attached file: IBM-Response-USPTO-RFC.doc)

John D. Flynn
Senior Attorney - IP&L Contracts & Licensing
Phone: (914) 765-4389 [IBM T/L 251-4389]
Fax: (914) 765-4290 [IBM T/L 251-4290]
Internet: flynnj@us.ibm.com
Notes: John D Flynn/Raleigh/IBM@IBMUS

International Business Machines Corporation

Comments on the International Effort to Harmonize the Substantive Requirements of Patent Laws

In a notice dated March 19, 2001, (66 Federal Register 15409 - 15411) the Acting Undersecretary of Commerce for Intellectual Property and Acting Director of the United States Patent and Trademark Office requested public comments on the International Effort to Harmonize the Substantive Requirements of Patent Laws. International Business Machines Corporation (IBM) is pleased to present the following comments in response to that request.

Introduction- General Comments

International Business Machines Corporation (IBM) is a world-recognized leader in the field of computer research, development, design, manufacturing and services. IBM has over 300,000 employees worldwide, many of whom are engaged in research and development relating to a broad spectrum of information technology.

During IBM's nearly 100-year history, its employees have included five Nobel laureates, three National Medal of Science recipients and six National Medal of Technology recipients. IBM has received tens of thousands of United States patents, including more patents than any other corporate assignee for the last eight years, and many patents universally recognized as pioneering. See, e.g., US Patent Nos. 2,810,900 (computer disk); 3,387,286 (array of dynamic random access memory cells); 4,343,993 (scanning tunneling microscope); and 4,528,626 (PC industry bus). Approximately 19,000 of IBM's United States patents are currently in force and are part of an extensive multi-industry licensing program. IBM obtains patents in many other countries as well and currently has a worldwide portfolio of over 33,000 patents. IBM is one of the largest patent holders in Europe and one of the largest patent holders in Japan. IBM licenses its patents on a non-discriminatory basis to over 1,000 licensees including many significant computer companies. IBM also has been involved in patent litigation, both as a defendant–accused infringer and as a plaintiff-patentee.

IBM strongly supports a truly harmonized patent system governing the substantive law of patents and the practices necessary to provide for the uniform treatment of patent applications and patent grants throughout the world. There is tremendous redundancy built into the current national/regional patent search, examination and enforcement systems. Highly skilled examiners throughout the world analyze the same patent application, search the same prior art and conduct substantially the same examination before granting substantially similar patent claims. A harmonized system will reduce costs for patent owners in obtaining and preserving rights to their inventions throughout the world and provide a uniform, efficient, less complex procedure for obtaining and enforcing patent rights globally. IBM fully supports the United States Patent and Trademark Office (USPTO) and its efforts to seek greater worldwide patent harmonization.

The Federal Register Notice of March 19, 2001, requested that comments be provided on each individual subject and that each item be numbered according to the paragraphs in the Notice. Although IBM offers comments on each of the seventeen interrelated issues identified by the USPTO, it should be recognized that an integrated, comprehensive approach to worldwide patentability requirements is necessary to bring about a fully harmonized patent treaty.

PTO Issue 1

(1) PTO: As to priority of invention, the United States currently adheres to a first-to-invent system. The remainder of the world uses a first-to-file rule in determining the right to a patent. Please comment as to which standard is the "best practice" for a harmonized, global patent system. It is noted that while the current draft of the treaty does not address this issue explicitly, it is likely that it will be raised in future meetings.

(1) IBM Comment:

A universal first-to-file system is a key concept in worldwide patent harmonization. A first-to-file system reduces invention protection costs, promotes greater certainty in patent ownership and encourages the early disclosure of inventions. The US is the only country in the world with a first-to-invent patent filing system. IBM recommends that the US adopt the otherwise universal first-to-file system. IBM, as a global corporation seeking worldwide patent protection for IBM inventions, must already organize its internal processes in a first-to-file fashion whenever patent protection is sought outside the US.

Advocates against adopting a universal first-to-file system often argue that it would place independent inventors and small business at a disadvantage. However, given the availability of low cost provisional applications, small entities can cost-effectively secure priority rights in a first-to-file system. At the same time, with a first-to-file system small entities would avoid having to resort to expensive interference proceedings that afford the first-to-file party significant procedural advantages even in a first-to-invent system. Moving to a first-to-file system would eliminate the administrative burden of interference proceedings imposed by a first-to-invent system, thereby freeing up USPTO resources. The adoption of prior user rights for all patentable subject matter would tend to further address small entity concerns with a first-to-file system.

PTO Issue 2

(2) PTO: As to what inventions may be considered patentable subject matter, the United States currently provides a test of whether the invention is within one of the statutory categories of 35 USC 101 and within the "useful arts" as expressed in the United States Constitution. The "useful arts" test requires that the claimed invention have a practical application providing a "useful, concrete and tangible result," see State Street Bank & Trust Co. v. Signature Financial Group, Inc., 149 F.3d 1368 (Fed. Cir. 1998). In contrast, the patent laws of some countries require that the invention provide a "technical contribution" in order to be eligible to be patented. The "technical contribution" requirement is generally considered to be more restrictive in determining what inventions may be patented.

(2) IBM Comment:

In order to satisfy the core purpose of a patent regime -- to promote innovation that otherwise would be under-incented -- IBM believes that inventions eligible for patent protection should be limited to those that contribute to a technological art. IBM favors a harmonized system which provides patent protection for subject matter in traditional areas of technology as well as new areas such as software and biotechnology. IBM favors a technological contribution requirement for all patentable inventions. IBM believes it would be inappropriate to base harmonization on the more liberal conditions currently in practice in the United States, particularly when viewed in the context of those being applied to the patenting of business methods. In the United States an invention needs no technological contribution; it must merely provide a useful, concrete and tangible result. IBM asserts that to require no more than a "useful, concrete and tangible result" in the broad sense currently being applied in the US invites the patenting of ideas that may have been visualized as desirable but have no foundation in terms of the research or development that may be required to enable their implementation.

IBM spends very substantial sums to develop products for the marketplace and must ensure the supply of products that are reliable, cost effective and meet the needs of the customer. In common with the vast bulk of the information technology industry, we seek to transfer actual working technology into the hands of the customer. The quid pro quo in the grant of patents is the disclosure of an implementation that rests on the research and development activity generating the inventions. However, with the advent of business method patenting it is possible to obtain exclusive rights over a general business model, which can include ALL solutions to a business problem, simply by articulating the problem. No investment in research and development needed to create an actual, practical, workable solution to the problem is required. The rationale that applies for protecting technological innovation by patents is therefore absent for those business methods where no such technical contribution is made. Awarding exclusive rights to such ideas is unnecessary; it does not meet the requirement to promote desirable innovation that otherwise would not occur.

It is important that the level of protection granted by a patent is commensurate with the contribution the inventor has made in a field where patent protection is needed. The danger of opening the door to the unrestricted patenting of business methods is that patents may be granted that foreclose entire fields of business with no requirement to disclose or even devise the implementation which makes them practicable. Thus, while IBM supports the patenting of computer program implemented inventions based on technical innovation, we see no benefit from the patenting of commerce or models of doing business themselves.

PTO Issue 3

(3) PTO: United States law currently provides for an enablement requirement, a written description requirement and a best mode requirement for patent disclosures. As to enablement, the standard of "undue experimentation" is applied. Regarding written description, United States law requires that the description convey to one of ordinary skill in the art that the applicant had possession of the invention as of the filing date of the application. The best mode requirement under United States law contains both subjective and objective components, with a subjective inquiry related to concealment on the part of the applicant. Standards vary among different patent systems as to disclosure requirements. For example, most other developed countries do not include a best mode requirement, yet many developing countries include or support a best mode requirement that is portrayed by some as a mechanism to compel technology and know-how transfer. The standard for evaluating compliance with such a requirement is an objective one; but, it is objective from the perspective of the examining authority.

(3) IBM Comment:

IBM favors the disclosure standards embodied in US law with regard to written description and enablement, but not with respect to best mode. As a quid pro quo for the right to exclude others from practicing their invention, applicants worldwide should be required to include sufficient substance and detail in their disclosure to demonstrate that the applicant had possession of the invention as of the filing date. The disclosure should also enable a person of ordinary skill in the art to practice the invention without the need for undue experimentation. The requirement to disclose best mode is unique to the US and a minority of other countries. While it may provide a mechanism for assuring a complete disclosure of the claimed invention, the best mode requirement adds to the complexity of drafting US counterpart applications for foreign origin applications first filed in countries without such a requirement. Since the determination of best mode is based at least partly on a subjective inquiry, when it is raised as an issue in litigation, it adds to the complexity and cost of the litigation. Therefore, IBM supports a unified approach to all patent disclosure requirements.

PTO Issue 4

(4) PTO: As to the contents of claims, some patent systems require the identification of "technical fields" to which the claimed invention relates. This apparently limits, to some degree, the categories of invention to which claims may be directed. There is no such requirement under current United States law.

(4) IBM Comment:

IBM has no strong opinion regarding a requirement to identify the technical field of the claimed invention. Identification of the technical field could be of potential value in situations where claims have been allowed that contain vague and indefinite language. It could also help to focus the claims on the technological contributions made by the invention. A requirement that an applicant identify the technical field or fields to which the invention relates in the specification could also be beneficial in aiding patent issuing authorities in determining an initial field of search as well as providing a basis for the initial classification of the application. However, it should be made clear that any such identification does not limit the scope of the claims to only those particular identified fields unless the applicant so states.

PTO Issue 5

(5) PTO: With regard to the issue of multiple inventions contained in a single patent application, most of the world uses a "unity of invention" standard, which is also contained in the Patent Cooperation Treaty (PCT). For national applications, the United States currently uses a restriction practice based on independence and patentable distinctness between claimed inventions.

(5) IBM Comment:

IBM favors the adoption of the unity of invention standard as practiced in most patent systems and as embodied in the PCT. It would simplify and reduce the cost of filing counterpart applications in the US based on foreign applications filed under the unity of invention standard.

As compared to current US restriction practice, IBM believes that it would be more efficient for the USPTO as well as applicants to deal with innovations that have a very close technical relationship in a single application. Therefore, even if USPTO filing fees were adjusted to compensate for the additional Examiner effort that unity of invention might entail, it is very likely that the applicant's total cost of prosecution would still be less than the cost of prosecuting multiple applications.

However, if unity of invention is adopted the treaty should also provide that no granted claim could be held invalid for an alleged lack of unity of invention.

PTO Issue 6

(6) PTO: United States law currently provides a utility requirement for patentability in 35 USC 101. Utility of an invention must be specific, substantial and credible. Most other patent systems have a requirement for industrial applicability. Industrial applicability is generally considered to be a narrower standard than utility, as it requires that the invention be usable in any type of industry.

(6) IBM Comment:

IBM has no strong preference as to whether the industrial applicability requirement or the utility requirement should be adopted as the harmonization standard. However, we note that the utility/industrial applicability requirement is intertwined with other substantive patentability requirements such as patentable subject matter and the definition of invention. IBM believes that the utility/industrial applicability requirement should not be considered separately from these other substantive patent requirements. Whatever the standard adopted IBM believes that an utility/industrial applicability requirement should be satisfied by the technological contribution an invention provides in the technological (i.e., US Constitutional term "useful") arts.

PTO Issue 7

(7) PTO: Current discussions in the SCP have indicated a willingness to implement a global priority date as to the prior art effective date of patent applications that are published or granted as patents. United States law now limits the prior art effective date of United States patents and United States patent applications to their effective filing date in the United States. See In re Hilmer, 359 F.2d 859 (CCPA 1966) and 35 USC 102(e). Further, United States law currently limits the prior art date as to foreign patent publications to their publication date, although international application publications are available as of their filing date, if published in English. See 35 USC 102(e).

(7) IBM Comment:

IBM supports the implementation of a global priority date as the effective filing date that can be used as the priority and prior art date in all countries for all purposes. A global priority date is consistent with the goal of harmonizing worldwide patent law, as the use of a global priority date will help ensure the uniform use and impact of prior art for examination purposes. This worldwide, consistent use of prior art will help ensure that patented inventions will be both novel and non-obvious, on a worldwide basis.

PTO Issue 8

(8) PTO: United States practice allows patent applications to be considered prior art as to situations of both novelty and obviousness, provided the application is earlier filed and is published or granted as required by 35 USC 102(e). Some other patent systems apply this type of prior art only with respect to novelty, due to concerns of the effect of what may be considered "secret" prior art. Such a novelty-only system, however, may also allow for the granting of multiple patents directed to obvious variations of inventions.

(8) IBM Comment:

IBM believes patent applications should be considered as prior art for both novelty and obviousness, as per the requirements of 35 USC 102(e). IBM favors a harmonized system providing for broad and consistent use of prior art references worldwide. This approach will ensure that patented inventions are both novel and non-obvious, on a worldwide basis, in relation to all available prior art.

PTO Issue 9

(9) PTO: United States patent law provides a "grace period". Disclosures by the inventor during the "grace period" do not have a patent defeating effect. Some other systems have an "absolute novelty" requirement such that any disclosures, including those by an inventor himself, made prior to the date the application is filed, are considered prior art.

(9) IBM Comment:

IBM supports a uniform worldwide grace period that is consistent with a first-to-file system. A first-to-file system provides an incentive for inventors to file patent applications quickly and before making any public disclosure of their invention. Inventors who do not file promptly risk losing patent rights to later inventors who file first. However, even with a first-to-file system, it is inevitable that inventors will occasionally disclose aspects of their invention before filing. Indeed, the US grace period has successfully shown that it is desirable for inventors to have a limited period of time in which to divulge aspects of their inventions (whether by commercialization or public use) to prove and refine viability prior to investing in patent filings. A grace period will protect inventors from losing their patent rights due to disclosure of their inventions under circumstances that do not negatively affect the public interest and may indeed positively serve the public interest. Public disclosures made by or on behalf of an inventor/assignee within the grace period should not be used as prior art when examining the subject patent application.

PTO Issue 10

(10) PTO: Recent discussions at the SCP have indicated a willingness on the part of many member states to eliminate any geographical restrictions that limit the definition of prior art. Currently, United States prior art requirements limit certain types of disclosures to acts within particular geographical limitations, such as the territory of the United States.

(10) IBM Comment:

IBM supports the elimination of geographical restrictions that limit the definition of prior art. The consistent use of prior art on a worldwide basis supports the goal of harmonizing patent law, and promotes uniformity by helping to ensure the uniform use and impact of prior art for examination purposes on a worldwide basis. By eliminating geographical restrictions that limit the definition of prior art, patented inventions will be both novel and non-obvious, on a worldwide basis, in relation to a broad range of prior art.

PTO Issue 11

(11) PTO: United States law provides for loss of right provisions, as contained in 35 USC 102(c) and 102(d), that discourage delays in filing in the United States. Further, 35 USC 102(b) bars the grant of a patent when the invention was "in public use or on sale" more than one year prior to filing in the United States. Secret commercial use by the inventor is covered by the bar in order to prevent the preservation of patent rights when there has been successful commercial exploitation of an invention by its inventor beyond one year before filing. Most other patent systems do not have such provisions.

(11) IBM Comment:

IBM favors a harmonized system in which any public use, sale, or other disclosure outside of the grace period should be a bar to patentability. IBM supports a harmonized worldwide system that encourages prompt filing of patent applications, and we believe that a first-to-file system encourages such prompt filing. Apart from any grace period, inventors who disclose or attempt to commercially exploit their inventions before filing run the risk of losing patent rights to later inventors who file first.

PTO Issue 12

(12) PTO: Current United States novelty practice allows, in limited circumstances, the use of multiple references for the anticipation of a claim under 35 USC 102. These circumstances include incorporation by reference, the explanation of the meaning of a term used in the primary reference or a showing that a characteristic not disclosed in the primary reference is inherent. Some other systems have stricter requirements for the use of additional references as to the determination of novelty.

(12) IBM Comment:

IBM supports a flexible approach in determining the teachings of a prior art reference asserted in an anticipation rejection. IBM supports the current US practice as a more favorable standard than an approach that limits anticipation rejections to the four corners of a single prior art document.

PTO Issue 13

(13) PTO: United States practice in determining obviousness under 35 USC 103 follows the practice set forth in Graham v. John Deere, 383 US 1(1966), and its progeny. Obviousness determinations vary throughout different patent systems. For example, some provide for a problem-solution approach, requiring the identification of a technical problem to be solved by the invention. There is no such requirement under United States law.

(13) IBM Comment:

Obviousness is a critical requirement in determining patentability in any patent system. IBM favors the continued use of the comprehensive US practice for making obviousness determinations. However, the problem-solution approach is useful in making obviousness determinations in certain circumstances. IBM does not view the problem-solution approach as fundamentally inconsistent or incompatible with current US obviousness practice. IBM would recommend and support efforts, in the context of treaty negotiations, to bridge the US approach with the problem-solution approach.

PTO Issue 14

(14) PTO: Current United States practice limits the filing of multiple dependent claims in 37 CFR 1.75(c) such that these claims must refer to the claims from which they depend only in the alternative. Further, a multiple dependent claim cannot depend from another multiple dependent claim. Some other patent offices allow for multiple dependent claims without these restrictions.

(14) IBM Comment:

IBM favors the unrestricted use of multiple dependent claims in US patent applications. Multiple dependent claiming is consistent with practice in the rest of the world and would not adversely impact US patent prosecution or alter the case law that has already been defined. Multiple dependent claims would simplify the drafting and prosecution of patent applications. Multiple dependent claims are a compact form of claim drafting that would reduce the chances for clerical error in replicating dependent claims based on the same set of base claims. They also provide a more expedient way for patent examiners to understand the entire claimed invention, rather than having to read through multiple, very similar dependent claims.

PTO Issue 15

(15) PTO: There has also been discussion within the SCP regarding the manner in which claims should be interpreted as to validity. It is not clear at this time whether both pre-grant and post-grant interpretation issues will be addressed. However, we are interested in comments with regard to any claim interpretation issues at this time as these issues may appear in future SCP meetings. For example, the United States generally subscribes to a peripheral claiming approach to interpretation in which the language of the claims dominates, although United States law provides that when an element in a claim is expressed as a means or step for performing a function, the claim will be construed to cover the corresponding structure, material or acts described in the specification and equivalents thereof, see 35 USC 112, paragraph 6. Other systems take a different, centrally focused view of the claimed invention that allows, in certain circumstances, for broader interpretation of the scope of the claimed invention.

(15) IBM Comment:

IBM supports the view that claim language should be the dominant factor in claim interpretation. The claims should define the invention by clearly setting forth the metes and bounds of the invention. IBM supports the view that the definitional and public notice functions of patent claims are paramount. IBM believes that claim interpretation must be viewed as a whole, from overall court cases, judicial doctrines, examination standards, statutory standards and the availability of a doctrine of equivalents. IBM believes that current US Law, with a substantial body of judicial precedent, strikes a proper balance between the rights of inventors and the rights of the public. Careful consideration should be given prior to changing the essential fabric of US patent law and altering this balance. A peripheral claiming approach provides for greater certainty in determining and assessing claim scope than a central claiming approach. IBM believes that a central claiming approach would lead to greater uncertainty by allowing for a broad interpretation of equivalents that would interfere with the definitional and notice functions of the claims.

IBM supports the use of "means plus function" claiming as the law currently allows in the United States as part of the peripheral claiming system. IBM does not favor broadening the interpretation of means plus function claims.

PTO Issue 16

(16) PTO: With further regard to claim interpretation, the United States currently applies the "doctrine of equivalents" when appropriate in interpreting claims in post- grant infringement cases. The "doctrine of equivalents" has continued to evolve in the United States, especially in view of the recently decided case of Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co., 234 F.3d 558 (Fed. Cir. 2000). Furthermore, the European Patent Convention (EPC) was recently amended to provide a more explicit basis for "doctrine of equivalents" determinations in the text of newly added Article 2 of the Protocol on the Interpretation of Article 69 EPC. This doctrine has also been recognized in litigation in Japan. However, some systems do not provide for such equivalents.

(16) IBM Comment:

IBM favors the concept of the doctrine of equivalents to the extent permitted under current US law, including *Festo* (as decided by the Court of Appeals for the Federal Circuit). IBM does not support an expanded view of the doctrine of equivalents where the doctrine becomes a license to sue on elements disclaimed or surrendered during prosecution or where the claims can be rewritten by post-issuance arguments to recapture surrendered matter. IBM believes that preserving the definitional and public notice functions of patent claims promotes greater certainty in patent law and to the extent that a doctrine of equivalents approach frustrates this objective, it should not be supported.

PTO Issue 17

(17) PTO: United States practice now requires that a patent be applied for in the name or names of the inventor or inventors. However, some systems allow for direct filing by assignees. Although the draft treaty text is currently silent on this issue, it may be raised at future meetings.

(17) IBM Comment:

IBM favors the adoption of assignee filing in the US and a treaty provision requiring all contracting states to permit assignee filing. One of the major objectives of harmonization is to reduce unnecessary requirements that place burdens on both applicants and patent issuing authorities. Most countries permit applications to be filed in the name of the actual owner of the invention which relieves corporate applicants of the burden of obtaining inventor signatures on declarations and assignments and simplifies the process of adding or deleting inventors. With the increasing propensity of people to change employers, companies are more frequently facing the need to obtain signatures from inventors who are no longer their employees.